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ABSTRACT

The way that the educational and occupational attainment of Blacks, Whites, and Hispanics are affected by the type of college attended and the student's field of study was investigated. The effects of attending a two-year/vocational college versus a four-year college and of pursuing a technical or hard science program versus education and social sciences programs were assessed. The study group was a national sample of high school seniors who participated in the National Longitudinal Survey of the High School Class of 1972. Both college type and major had a significant effect on educational attainment, and college type had a small but significant effect on occupational attainment. Interactions of college type with race and sex were also found. College major significantly affected educational attainment of four-year colleges students versus a negligible effect for two-year students. Educational expectations had a stronger impact on educational attainment for Hispanics and Whites than for Blacks, and for females than for males. Educational attainment was the major determinant of occupational attainment for Blacks and Whites, while sex and educational expectations were the most important factors for Hispanics. Finally, college major had a significant effect on occupational attainment of females versus a negligible effect for males. (Author/SW)

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EVALUATING THE PAYOFFS OF COLLEGE INVESTMENTS FOR BLACK, WHITE, AND HISPANIC STUDENTS

Gail E. Thomas and Samuel A. Gordon

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The Johns Hopkins University

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The Center

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through three research programs to achieve its objectives. The School Organization Program investigates how school and classroom organization affects student learning and other outcomes. Current studies focus on parental involvement, microcomputers, use of time in schools, cooperative learning, and other organizational factors. The Education and Work Program examines the relationship between schooling and students' later-life occupational and educational success. Current projects include studies of the competencies required in the workplace, the sources of training and experience that lead to employment, college students' major field choices, and employment of urban minority youth. The Delinquency and School Environments Program researches the problem of crime, violence, vandalism, and disorder in schools and the role that schools play in delinquency. Ongoing studies address the need to develop a strong theory of delinquent behavior while examining school effects on delinquency and evaluating delinquency prevention programs in and outside of schools.

The Center also supports a Fellowships in Education Research program that provides opportunities for talented young researchers to conduct and publish significant research and encourages the participation of women and minorities in research on education.

This report, prepared by the Education and Work Program, examines how the educational and occupational attainment of blacks, whites, and Hispanics are affected by the type of college attended and the type of college major selected.

Abstract

This study examines how attending a two-year/vocational college versus a four-year college, and pursuing a college major in the hard and technical sciences versus education and the social sciences, affects the subsequent educational and occupational attainment of a national sample of high school seniors enrolled in U.S. colleges in 1972-1973. It was hypothesized that the type of colleges that students attend and their college major would have a significant effect on educational and occupational attainment. The main and interaction effects of college type, college major, and race and sex involving the two major dependent variables were examined.

Both college type and college major had a significant effect on educational attainment. Also, college type exerted a small but significant main effect on occupational attainment for the total sample of two-year and four-year college students.

Interactions of college type with race and sex were also found. College major had a significant impact on the educational attainment of four-year college students versus a negligible effect for two-year college students. Race and sex interactions were attributed to the stronger impact of educational expectations on educational attainment for Hispanics and whites than for blacks; and for females than for males.

Educational attainment was the major determinant of occupational attainment for blacks and whites, while sex and educational expectations were the most important determinants for Hispanics. College major had a significant (positive) effect on the occupational attainment of females versus a negligible effect for males.

Based on these findings, the report suggests that: (1) interaction effects be considered in attempting to understand race and sex differences in status outcomes; (2) follow-up research be designed to study college type and college major as dependent or outcome variables to gain a better understanding of their effects on the status attainment outcomes of women and racial minorities; and (3) additional research on two-year college students and on Hispanics be conducted to extend the limited knowledge regarding the career attainment of these groups.

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Introduction

Investing in a college education and subsequent higher education is viewed by most Americans as the key to upward mobility, particularly for women and racial minorities, many of whom continue to seek greater equality of educational op ortunity. In recent years, the value of higher education for job access and occupational attainment has been questioned. For example, Berg (1971) and others (Freeman, 1976; Solomon and Taubman, 1973) have noted that a high school diploma and on-the-job training are more useful for job access and on-the-job performance than are the inflated educational credentials upon which many employers base their hiring decisions.

The type of colleges that students attend and the type of careers that college students prepare themselves for are also factors that influence educational and occupational attainment outcomes. Recent and previous studies (Blau and Duncan, 1967; Coleman et al., 1972; Sewell, Haller and Portes, 1969; Sewell, Haller, and Ohlendorf, 1970; Gottfredson, 1977; Kolstad, 1982) on the payoffs of schooling have been restricted to investigating the effects of the amount of schooling obtained on occupational attainment. However, the type of schooling and the nature of vocational training may also be important stratification variables that sort students into different jobs and career tracks.

This paper addresses the question of the effects of college type and college major on the subsequent educational and occupational attainment of a national sample of black, white and Hispanic males and females who were attending U.S. postsecondary institutions in 1972-1973. Previous studies have shown that women and racial minorities achieve lower levels of educational and occupational attainment than males and whites. Discrimination in higher

education and the labor market is one explanation for race and sex differences in occupational outcomes (Alvarez, 1979; Persell, 1977; Scott, 1982; Szafran, 1982). However, differences in the type and quality of schooling that race and sex groups obtain, and differences in college major and career choice, may further explain group differences in status outcomes. This may be especially true, given the overrepresentation of women, blacks and Hispanics in two-year colleges, and in traditional and less economically rewarding college majors and careers (Thomas, 1980; Pincus, 1980; Astin, 1982; Angrist and Almquist, 1975; Vetters, 1977). The effects of college type and college major on the status outcomes of race and sex groups have not been examined in a multivariate framework. It is hypothesized that both college type and college major will have a significant effect on the educational and occupational attainment of race and sex groups.

Sample

Students who were enrolled in U.S. colleges and universities in 1972 and 1973 constitute the sample for this analysis. These students participated in the Base-Year and subsequent Follow-Up Surveys of the National Longitudinal Survey (NLS) of the High School Class of 1972. The initial survey, conducted by the Department of Education's National Center for Education Statistics (NCES), was designed to determine what happens to students when they leave high school in terms of their educational and vocational plans and experiences.

The survey was based on a two-stage probability sample with schools as first stage sampling units, and students as second stage units. The initial survey involved a representative sample of approximately 21,600 white and minority (Blacks, Mexican-American, Oriental, Puerto Rican, Latin Americans, Asians, Indians) male and female high school seniors. The subsample

employed in this analysis consists of white, black and Hispanic students (e.g., Mexican-Americans, Puerto Ricans, Latin Americans) who attended U.S. postsecondary institutions (two-year/vocational and four-year colleges) in 1972-1973.[1] During this time period, 34 percent of the blacks and whites were enrolled in four-year colleges. Among Hispanics, 55 percent were enrolled in two-year/vocational colleges and 45 percent were enrolled in four-year colleges.

Methodology

Variables

The two dependent variables of interest in this study are educational and occupational attainment. Educational Attainment is a five-category fourth wave follow-up item (1979), ranging from less than two years of college to graduate or professional degree attainment. This item measures the highest level of education respondents obtained as of October of 1979. Occupational Attainment is a fourth wave Follow-Up measure that asked respondents to describe the job that they held during October of 1979. This information was originally coded into the 1970 Census occupational codes and subsequently recoded into Duncan SEI scores.

The independent variables included in the study are:

Family Background (SES) - This Base-Year (1972) variable is a trichotomous measure (ranging from low to high) on which respondents provided information about their parents' education, income, father's occupation, and their possession or non-possession of certain household educational, cultural and service items (i.e., encyclopedias, newspapers, automobiles, television/tape recorders, etc.).

Race - The three racial groups in this analysis are blacks, Hispanics,

[1] See Thomas (1981) for a more extensive description of the NLS sample.

and whites. However, in subsequent regression analyses in which race is entered directly into the regression equation(s), a dichotomous race variable will be constructed with blacks and Hispanics combined to represent a minority group (coded 0) and with whites (coded 1) representing the majority group.

Sex - This is a dummy variable with males coded 1 and females coded 0.

Standardized Test Performance - This is a composite Base-Year measure that consists of four subtests (math, vocabulary, letter groups, and reading). It taps respondents' verbal and non-verbal ability. The test is similar to the college admissions tests administered by the Educational Testing Service and the American College Testing Program.

High School Race - Data on this Base-Year measure were taken from a school questionnaire that was completed by school officials. This item asked what percentage of the student body at the high schools which respondents attended in 1972 were white. The original categories ranged from 0 to 100 percent. However, in this analysis, these categories have been collapsed into a dichtomous measure of predominantly white (1) high schools (i.e., 50% or greater white) versus predominantly minority high schools (0).[2]

Percent (%) Academic Curriculum - This item, taken from the high school files during the Base-Year survey, asked the percentage of high school students that were enrolled in a college preparatory or academic curriculum. The response category ranged from 0 to 100.

High School Grades - This is a self-reported Base-Year item on which

[2]This measure was dichotomized so that its effects on the major dependent variables could be compared with the impact of college racial composition, which was originally coded as a dichotomous measure of less than or greater than 50 percent black.

respondents indicated the grade that best described their high school performance. The original eight-category item ranged from mostly A to mostly below D. This variable has been recoded into five categories ranging from mostly A (coded 5) to mostly below D (coded 1).

Educational Expectations - This is a Base-Year measure in which respondents indicated the highest level of education they expected to achieve. The original response categories ranged from less than high school graduation to obtaining a graduate or professional degree. These categories were collapsed into four categories ranging from high school graduation or less (1) to graduate or professional school enrollment and/or completion (4).

Occupational Expectations - On this Base-Year item, respondents were asked to indicate--from a list of fourteen occupations--the occupation that best described the type of work that they expected to do. These categories were converted into Duncan SEI scores.

College Racial Composition - This variable was taken from the college file. It indicates the racial composition of the college that students attended in 1973. Predominantly white institutions (i.e., less than 50 percent black) were coded 1; and predominantly black institutions (50 percent or greater black) were coded 0.

College Type - This variable was also taken from the college file. It indicates the type of college that students attend. Four-year colleges were coded 1, and two-year, vocational, technical and other non-four year colleges were coded 0.

College Grades - This is a third-wave follow-up item on which respondents were asked to estimate the grade that best described their junior and senior year college performance. The present response categories ranged from mostly A (coded 4) to mostly D or below (coded 1).

College Major - This is a third wave follow-up item on which respondents indicated, from among sixteen categories, the field of study that best described their college major. For purposes of regression analyses, these categories were dichotomized into: (1) the hard and technical sciences (biology, chemistry, math, physics, engineering), business, and pre-professional fields (i.e., law, medicine) and (0) education, the social sciences and other more traditional fields.

Analyses

This study addresses the question: What are the effects of college type and college major relative to other independent variables on the educational and occupational attainment of college students? Multiple regression analyses (Kerlinger and Pedhazur, 1973) will be used to address this question. This procedure permits an assessment of the simultaneous and separate contribution of the independent variables to the variation in the dependent variables. The analytical model that will be evaluated via multiple regression is presented in Figure 1.

Figure 1 About Here

This model is similar to most past status attainment models in which family status, race, sex and standardized test performance are the exogenous variables. These background variables, in addition to the characteristics of the high schools that students attend and their high school grade performance, exert a direct and indirect effect on students' educational and occupational expectations. Students' educational and occupational expectations in turn affect the type of college that they attend, their academic and social experiences in college, and their subsequent educational and occupational attainment (Sewell, Haller and Portes, 1969; Porter, 1974; Thomas, 1981).

It is hypothesized that the model in Figure 1 is fully recursive with all preceding variables affecting subsequent variables. The causal relationship among the independent variables will not be analyzed because the primary interest is in the effects of the independent variables on the two major dependent variables--educational and occupational attainment.

Findings

In a preliminary analysis, the main effect of college type and college major on educational and occupational attainment relative to other independent variables was examined. The results (not presented) showed that college type (i.e., attending a four-year rather than a two-year vocational college) and college major (i.e., majoring in hard rather than soft sciences) had a significant positive effect on educational attainment, and that college type had a small but significant effect on occupational attainment. Thus, a subsequent test for interactions (Tatsouka, 1971) was conducted to determine if the analytical model in Figure 1 should be analyzed separately for two-year and four-year college students, and separately for race and sex groups. Interactions exist if the "F" values produced by the statistics from the equations for combined and separate groups are significant at the .05 level.

Table 1 shows the results from the interaction tests involving the two major dependent variables--educational and occupational attainment: Columns 2 and 4 report the R^2 values from the regression equations for two-year and four-year college students, and for race and sex groups analyzed jointly (i.e., combined) and separately. The final column in Table 1 reports the corresponding "F" values. The significant F values (i.e., values with asterisks) indicate that the equations involving the dependent variable, educational attainment, should be analyzed <u>separately</u> for two-year and four-year college students (F=14.50) and for whites, blacks and Hispanics (F=2.06)

and males and females (F=2.08) in two-year colleges. For the dependent variable, occupational attainment, the results in Table 1 show that the regression equation should not be analyzed separately for two-year and four-year college students, but should be analyzed separately for race (F=2.00). and sex groups (F=1.98) with two- and four-year college students combined.

The remaining tables, Tables 2-4, present the findings from the regression equations for the two dependent variables based on the results from the interaction tests in Table 1.[3] Table 2 shows college type, college major and the remaining independent variables regressed on educational attainment. The equation in Table 2 is analyzed for the total sample of four-year college students (i.e., with race and sex groups combined). This is based on the results in Table 1 which showed that race (F=1.33) and sex (F=1.39) interactions for four-year college students were not significant regarding educational attainment.

Consistent with our prediction, Table 2 shows that for four-year college students, college major (i.e., majoring in the hard and technical sciences and pre-professions rather than education, the social sciences and other less marketable fields) has a significant positive effect on educational attainment. Also, three additional variables have a significant, and even greater impact on the educational attainment of four-year college students than college major. These variables include college grades (.243), educational expectations (.160), and high school grade performance (.155). Together, the independent variables explain 23 percent of the variance in educational

[3]Tables I and II in the Appendix present the item means and standard deviations for two-year and four-year college students. These tables show that NLS students who attended four-year colleges in 1972-1973 were from higher family backgrounds, had higher high school and college grades, and had higher attainment aspirations than students who attended two-year and vocational colleges. In addition, students who attended four-year colleges in 1972-1973 achieved higher levels of educational and occupational attainment than students who were enrolled in two-year and vocational colleges during that time.

attainment for four-year college students.

Table 3 presents separate equations for the dependent variable, educational attainment, for race and sex groups in two-year colleges. This analysis is also based on the results in Table 1. Unlike the results for four-year college students, Table 3 shows that college major does not have a significant effect on educational attainment for any of the race and sex groups. Also, the independent variables are not as effective in predicting the educational attainment of two-year college students (R^2=.160) as they are for four-year college students (R^2=.232). However, comparisons of race and sex groups within two-year colleges show that the independent variables are more predictive for Hispanics (.392) than for blacks (.130) and whites (.190) and for females (.221) than for males (.130). The higher percentage of variance explained for Hispanics and females than their counterparts is due to the stronger impact of educational expectations on educational attainment for Hispanics and females than for blacks, whites and males.

Table 4 shows the results for the dependent variable, occupational attainment, for each race and sex group with two-year and four-year college students combined. (Interactions for two- and four-year college students with respect to occupational attainment were not significant.) However, significant race and sex interactions were found regarding occupational attainment for the total sample of two- and four-year college students.

The results in Table 4 indicate that with the exception of females, neither college type nor college major have a significant effect on occupational attainment for race and sex groups.[4] Educational attainment (i.e.,

[4]It was previously reported that the main effect of college type on occupational attainment was significant although very small (beta = .084). The significant effect found for the total sample in contrast to the lack of significance shown in Table 4 for race and sex groups is probably attributed to the larger N for the total sample versus the smaller N's for the subgroup samples.

the total number of years of schooling completed) rather than college type or college major, is the most importa . determinant of occupational attainment for blacks, whites, males and females. However, for Hispanics, sex and educational expectations are the most important determinants of occupational attainment. Specifically, having high educational expectations and being female are positive assets for occupational attainment for Hispanics, while having a high level of educational attainment is the most important asset for occupational attainment for the remaining race and sex groups.

Another important race difference in Table 4 is that the indpeendent variables are more predictive of the occupational attainment of blacks (R^2 = .268) and Hispanics (R^2 = .235) than of whites (R^2 = .159). This is attributed to the stronger impact of educational attainment on occupational attainment for blacks (9.232) than for whites (6.807), and the stronger impact of educational expectations on occupational attainment for Hispanics (6.145) than for whites (-2.722). Lastly, a comparison of the sexes in Table 4 shows that the process of occupational attainment for NLS males and females enrolled in postsecondary education is quite similar. The only exception is with respect to the impact of college major on occupational attainment, which is significant and more influential for females (5.317) than for males (0.215). This relationship probably accounts for the sex interaction regarding occupational attainment noted previously in Table 1. However, Table 4 shows that males and females are relatively similar regarding the effects of the remaining independent variables on occupational attainment and the percentage of variance explained in occupational attainment.

Summary and Conclusions

To summarize, the research question raised in this study is: What are the effects of college type and college major on the educational

and occupational attainment of race and sex groups? To address this question, the main effects of these independent variables along with other independent variables are examined. Also, a series of interaction tests and regression equations involving the two major dependent variables were examined.

Important findings included the significant main effects of college type on educational and occupational attainment, and the significant main effect of college major on educational attainment. In addition, significant interactions were found for college type and educational attainment for race and sex and educational attainment among two-year college students and for race and sex and occupational attainment for the total sample of two-year and four-year students.

Further examination of regression equations for various groups revealed the nature of the interactions found. Interactions regarding college type included the significant impact of college major on educational attainment for four-year college students in contrast to its negligible effect for two-year college students. Also, the independent variables were more predictive of educational attainment for four-year than for two-year college students.

Race and sex interactions affecting educational attainment among two-year college students were primarily attributed to the stronger impact of educational expectations on educational attainment for Hispanics and whites than for blacks; and for females than for males. With reference to occupational attainment, educational attainment was the major determinant of occupational attainment for blacks and whites, while sex and educational expectations were the most important factors for Hispanics. Finally, college major (i.e., majoring in the hard and technical sciences and pre-professions as opposed to education, the social sciences and other "soft" sciences) was a

significant determinant of occupational attainment for females but not for males.

The findings from this study suggest some important implications. First, the various interactions found for two-year and four-year college students and for race and sex groups imply that to some extent, variables affecting and explaining educational and occupational attainment do differ for race and sex groups. These differences should be considered when inquiring about race and sex differences in status outcomes. Secondly, our findings showed that college type and college major do have some consequences in the higher educational and occupational attainment process. Specifically, college type was a significant predictor of educational attainment for the total sample of two-year and four-year college students. In addition, college major was a significant predictor of educational attainment among four-year college students, and of occupational attainment for the total sample of two-year and four-year college females. These findings suggest that the underrepresentation of women and racial minorities in marketable and economically rewarding college majors may indeed account for race and sex disparities in occupational attainment. They also suggest the need for further research that investigates the major field choice and college selection process for women and racial minorities (i.e., why do women and blacks and Hispanics choose two-year colleges and less competitive college majors?).[5]

Our findings also suggested that variables affecting educational and occupational attainment were more different for Hispanics than for blacks and whites, and more different for two-year than for four-year college students. Very little is known about the status attainment of Hispanics

[5]A study was previously conducted by Thomas and Braddock (1981) on the college selection process for blacks. Also Thomas (1982) is currently engaged in research on the major field selection process of college students.

and other racial minorities, and students in two-year colleges. Most previous attainment research has been based on black-white comparisons, and on secondary versus total samples of postsecondary students (Portes and Wilson, 1976; Thomas, Alexander and Eckland, 1979; Kerckhoff and Campbell, 1977). The present findings, coupled with the increasing role of two-year colleges and the increasing presence of other racial minorities in higher education, suggest that more detailed research on two-year college students and on Hispanic and other racial minorities in higher education is needed.

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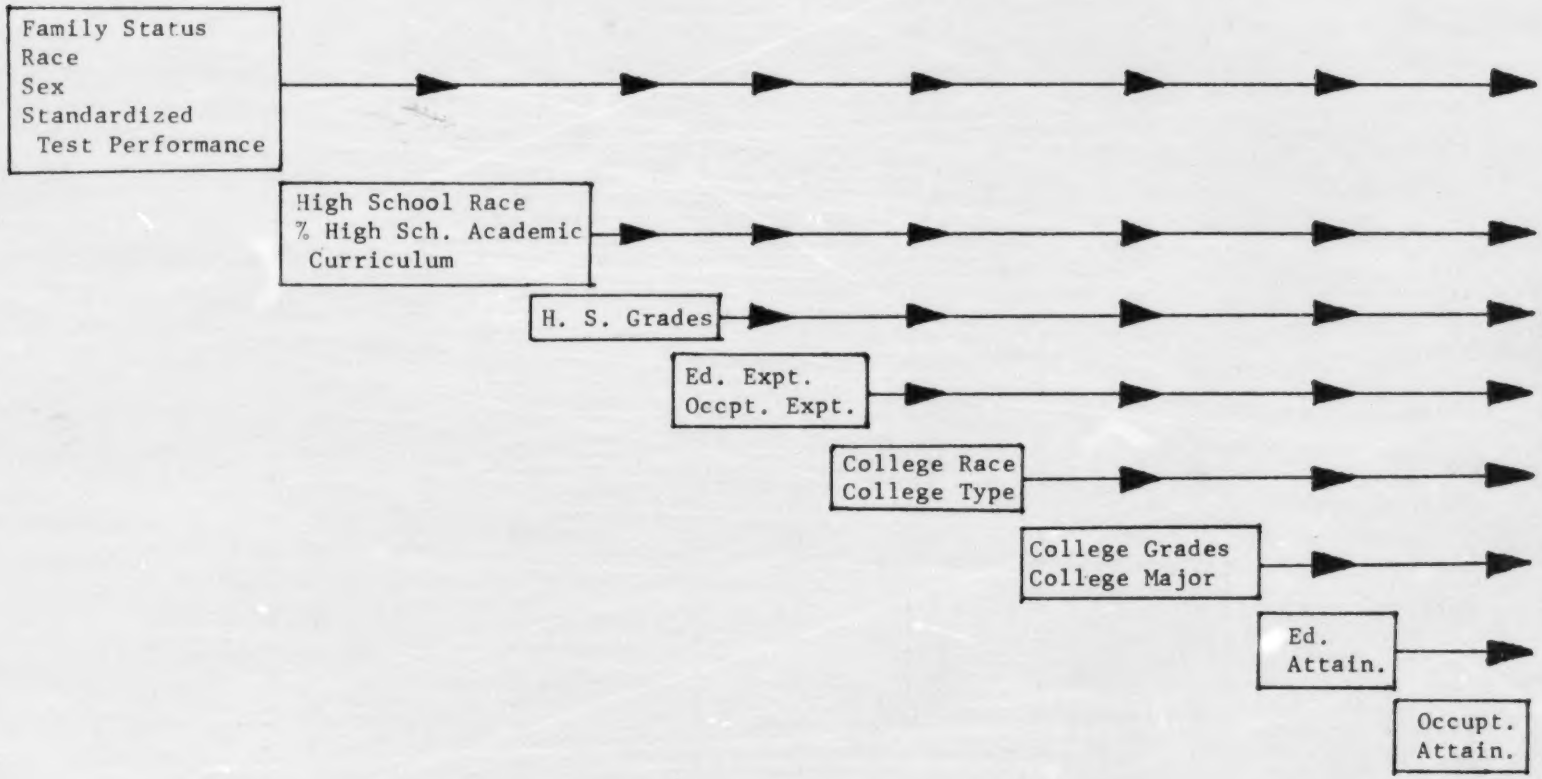
Figure 1: Predictors of Educational and Occupational Attainment for College Students (1972-1973)[a]



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[a]The causal relationships between the independent variables are not examined because the primary interest is in the relationship between the independent variables and the two dependent variables--educational and occupational attainment.

Table 1: Interaction Test for College Type, Race and Sex Groups Involving Dependent Variables Educational and Occupational Attainment

Combined Groups (Single Models)	R^2	Separate Groups (Multiple Models)	R^2	F Statistics
Two-Year and Four-Year Students Combined	$R_1^{2\,a} = .289$	Two-year students	$R_1^2 = .160$ $R_2^2 = .151$	14.50* (Ed)
	$R_2^{2\,a} = .186$	Four-year students	$R_1^2 = .232$ $R_2^2 = .173$	.00 (Occpt)
Two-Year Students	$R_1^2 = .160$	Whites (2-yr.)	$R_1^2 = .190$	2.06* Ed (2-yr.)
		Blacks	$R_1^2 = .130$	
		Hispanics	$R_1^2 = .392$	
Four-Year Students	$R_1^2 = .232$	Whites (4-yr.)	$R_1^2 = .233$	
		Blacks	$R_1^2 = .206$	1.33 Ed (4-yr.)
		Hispanics	$R_1^2 = .384$	
Two-Year Students	$R_1^2 = .160$	Males (2-yr.)	$R_1^2 = .130$	
		Females (2-yr.)	$R_1^2 = .221$	2.08* Ed (2-yr.)
Four-Year Students	$R_1^2 = .232$	Males (4-yr.)	$R_1^2 = .273$	1.39 Ed (4-yr.)
		Females (4-yr.)	$R_1^2 = .207$	
Two-Year and Four-Year Students Combined	$R_2^2 = .186$	Whites (2-yr. & 4-yr.)	$R_2^2 = .159$	
		Blacks	$R_2^2 = .268$	
		Hispanics	$R_2^2 = .235$	2.00* (Occpt)
Two-Year and Four-Year Students Combined	$R_2^2 = .186$	Males (2-yr. and 4-yr.)	$R_2^2 = .202$	1.98* (Occpt)
		Females (2-yr. and 4-yr.)	$R_2^2 = .198$	

[a] R_1^2 represents the percentage of variance explained in educational attainment; R_2^2 represents the percentage of variance explained in occupational attainment.

* F statistic significant at the .05 level.

Table 2: Model Predicting Educational Attainment for Race and Sex Groups Enrolled in U.S. Four-Year Colleges in 1972-1973

Independent Variables[d]	Four-Year College Students[a] Total Sample (n=1,209)[b]
Family Status	.050[c] .050
Sex	.069 .045
Race	-.005 -.014
Standardized Test Performance	.050 .048
High School Race	-.031 -.018
% Academic Curriculum	.000 .009
High School Grades	.172 .155*
Occupational Expectations	.004 .057
Educational Expectations	.214 .160*
College Race	-.093 -.060
College Grades	.289 .243*
College Major	.159 .101*
R^2	.232

[a]Preliminary analyses comparing weighted and unweighted distributions did not result in major differences. Therefore, the unweighted distributions were used in these analyses.

[b]Pairwise deletions of missing values from SPSS subprogram regression were employed. The N^S reported in parentheses are the N^S for the major dependent variable--Educational Attainment.

[c]The top coefficients are the unstandardized values; the bottom coefficients are the standardized values.

[d]See variable description for definitions and coding of the variables.

*Coefficients are 2 times or greater than their standard error.

Table 3: Model Predicting Educational Attainment for Race and Sex Groups Enrolled in U.S. Two-Year and Vocational Colleges in 1972-1973[a]

Independent Variables[d]	Groups: Blacks (N=189)[b]	Hispanics (N=114)	Whites (N=316)	Males (N=292)	Females (N=307)	Total Sample (N=599)
Family Status	-.033[c]	.062	.144	.179	.008	.107
	-.028	.052	.133	.167	.007	.097
Sex	.009	.103	-.111	--	--	-.064
	.013	.060	-.069			-.040
Race	--	--	--	-.023	.050	.032
				-.065	.149	.020
Standardized Test Performance	.114	.038	.055	.069	.010	.065
	.075	.030	.044	.062	.009	.059
High School Race	.351	-.087	.154	.212	.009	.137
	.233	-.051	.050	.122	.054	.080
% Academic Curriculum	-.011	.006	.001	-.001	.001	.000
	-.015	.188	.025	-.030	.029	.003
High School Grades	.073	.057	.169	.151	.033	.089
	.065	.047	.140	.124	.190	.075
Occupational Expectations	.011	.003	-.002	-.000	.004	.001
	.225	.066	-.047	-.001	.075	.028
Educational Expectations	.057	.602	.303	.159	.385	.271
	.064	.514*	.296*	.151	.377*	.263*
College Race	.143	.178	-.081	-.005	.005	.020
	.082	.043	-.044	-.003	.002	.009
College Grades	-.104	.078	.075	.031	.003	.040
	-.081	.066	.056	.024	.022	.031
College Major	.047	-.081	.008	.009	.005	.040
	.030	-.047	.005	.006	.027	.024
R^2	.130	.392	.190	.130	.221	.160

[a] Preliminary analyses comparing weighted and unweighted distributions did not result in major differences. Therefore, the unweighted distributions were used in these analyses.

[b] Pairwise deletions of missing values from SPSS subprogram regression were employed. The N^S reported in parentheses are the N^S for the major dependent variable--Educational Attainment.

[c] The top coefficients are the unstandardized values; the bottom coefficients are the standardized values.

[d] See variable description for definitions and coding of the variables.

* Coefficients are 2 times or greater than their standard error.

Table 4: Model Predicting Occupational Attainment for Whites, Blacks, and Hispanics College Students (Two-Year and Four-Year College Students Combined)[a] 1972-1973

Independent Variables[d]	Whites (N=1,009)[b]	Blacks (N=629)	Hispanics (N=187)	Males (N=958)	Females (N=867)
Family Status	1.227[c]	1.609	3.821	-0.276	2.845
	0.039	0.053	0.127	-0.009	0.120
Sex	-1.442	-3.163	-9.601*	--	--
	-0.036	-0.076	-0.233*	--	--
Race	--	--	--	0.375	-0.349
				0.038	-0.047
Standardized Test Performance	1.567	0.250	-1.248	2.624	-0.717
	0.049	0.008	-0.041	0.087	-0.031
High School Race	2.766	1.199	-3.961	-1.296	2.303
	0.032	0.029	-0.096	-0.025	0.061
Percent Academic Curriculum	0.006	0.034	-0.013	0.019	-0.675
	0.009	0.043	-0.016	0.024	-0.001
High School Grades	2.526	1.443	3.523	3.212	1.144
	0.088	0.049	0.122	0.101	0.045
Occupational Expectation	0.078	0.092	-0.142	0.072	0.029
	0.057	0.062	-0.107	0.056	0.017
Educational Expectation	-2.722	0.528	6.145	-0.176	-2.583
	-0.096	0.019	0.199*	-0.006	-0.103
College Race	1.803	3.942	-6.113	5.064	2.635
	0.044	0.094	-0.060	0.108	0.070
College Type	3.852	2.509	3.864	4.820	3.657
	0.090	0.058	0.093	0.102	0.098
College Grades	-.214	0.400	0.539	-0.727	0.460
	-0.007	0.012	0.018	-0.021	0.016
College Major	3.123	4.372	-3.783	0.215	5.317*
	0.077	0.102	-0.089	0.005	0.130
Educational Attainment	6.807	9.232	3.226	7.536	7.731
	0.281*	0.396*	0.132	0.300*	0.353*
R^2	.159	.268	.235	.198	.202

[a]Preliminary analyses comparing weighted and unweighted distributions did not result in major differences. Therefore, the unweighted distributions were not used in these analyses.

[b]Pairwise deletions of missing values from SPSS subprogram regression were employed. The N's reported in parentheses are the N's for the major dependent variables--Occupational Prestige.

[c]The top coefficients are the unstandardized values; the bottom coefficients are the standardized values.

[d]See variable description for definitions and coding of the variables.

Appendix

Table I

Item Means and Standard Deviations for Total Sample and Race and Sex Subgroups Attending Two-Year and Vocational Colleges in 1972-1973[a]

Variables[b]		Total Sample	Blacks	Hispanics	Whites	Males	Females
SES	$\bar{X}$	1.85	1.52	1.51	2.22	1.92	1.79
	SD	0.73	0.62	0.65	0.64	0.75	0.70
Sex	$\bar{X}$	0.49	0.40	0.55	0.54	--	--
	SD	0.50	0.49	0.50	0.50	--	--
Race	$\bar{X}$	0.48	--	--	--	0.52	0.44
	SD	0.50	--	--	--	0.55	0.50
Standardized Test Performance	$\bar{X}$	1.79	1.30	1.50	2.20	1.82	1.76
	SD	0.72	0.49	0.60	0.64	0.71	0.74
H.S. Race	$\bar{X}$	0.68	0.42	0.49	0.93	0.70	0.65
	SD	0.47	0.49	0.50	0.26	0.46	0.48
% Academic Curriculum	$\bar{X}$	40.45	34.58	40.84	44.52	39.51	41.43
	SD	25.18	22.08	24.61	26.67	25.54	24.79
H.S. Grades	$\bar{X}$	3.46	3.36	3.30	3.59	3.33	3.57
	SD	0.67	0.66	0.65	0.66	0.66	0.67
Occpt. Expt.	$\bar{X}$	57.86	59.41	55.58	58.06	54.45	60.94
	SD	17.42	14.81	17.48	18.21	20.19	13.84
Ed. Expt.	$\bar{X}$	2.53	2.56	2.42	2.55	2.61	2.45
	SD	0.77	0.82	0.65	0.78	0.76	0.78
College Race	$\bar{X}$	0.80	0.76	0.99	0.74	0.79	0.81
	SD	0.40	0.43	0.10	0.44	0.41	0.40
College Grades	$\bar{X}$	2.60	2.47	2.54	2.71	2.56	2.64
	SD	0.63	0.58	0.73	0.60	0.62	0.63
College Major	$\bar{X}$	0.37	0.35	0.38	0.39	0.49	0.24
	SD	0.48	0.48	0.49	0.49	0.50	0.43
Ed. Attainment	$\bar{X}$	2.03	1.89	1.89	2.15	2.02	2.04
	SD	0.80	0.75	0.82	0.80	0.80	0.80
Occpt. Prestige	$\bar{X}$	47.14	43.94	47.00	49.18	44.21	49.86
	SD	20.37	19.52	21.38	20.37	22.50	17.78

[a]Pairwise deletions were employed from SPSS subprogram regression analysis. The number of cases for the total sample of two-year college students ranged from: total = 230-803; blacks = 69-282; Hispanics = 45-136; whites = 116-385; males = 123-394; females = 107-408.

[b]See variable description section for specification of variable categories.

Table II

Item Means and Standard Deviations for Total Sample and Race and Sex Subgroups Attending Four-Year Colleges in 1972-1973[a]

Variables[b]		Total Sample	Blacks	Hispanics	Whites	Males	Females
SES	$\bar{X}$	2.08	1.68	1.55	2.44	2.15	2.02
	SD	0.77	0.70	0.72	0.63	0.77	0.77
Sex	$\bar{X}$	0.47	0.39	0.48	0.53	--	--
	SD	0.50	0.49	0.50	0.50	--	--
Race	$\bar{X}$	0.53	--	--	--	0.60	0.47
	SD	0.50	--	--	--	0.49	0.50
Standardized Test Performance	$\bar{X}$	2.19	1.72	1.87	2.57	2.25	2.13
	SD	0.74	0.66	0.70	0.58	0.74	0.74
H.S. Race	$\bar{X}$	0.71	0.42	0.41	0.95	0.76	0.66
	SD	0.45	0.49	0.49	0.21	0.42	0.47
% Academic Curriculum	$\bar{X}$	46.09	36.94	43.43	52.80	48.75	43.59
	SD	29.01	27.75	27.21	28.36	30.01	27.82
H.S. Grades	$\bar{X}$	3.86	3.64	3.86	4.02	3.75	3.95
	SD	0.70	0.68	0.67	0.67	0.71	0.68
Occpt. Expt.	$\bar{X}$	65.30	64.01	66.19	65.83	63.11	67.28
	SD	12.34	13.30	10.47	12.03	15.70	7.68
Ed. Expt.	$\bar{X}$	3.20	3.25	3.07	3.20	3.22	3.19
	SD	0.58	0.62	0.52	0.57	0.63	0.54
College Race	$\bar{X}$	0.77	0.67	0.87	0.79	0.80	0.77
	SD	0.50	0.50	0.33	0.49	0.50	0.50
College Grades	$\bar{X}$	2.75	2.55	2.58	2.90	2.69	2.81
	SD	0.65	0.59	0.65	0.65	0.69	0.61
College Major	$\bar{X}$	0.40	0.34	0.36	0.45	0.52	0.26
	SD	0.49	0.47	0.48	0.50	0.50	0.44
Ed. Attainment	$\bar{X}$	2.79	2.66	2.57	2.90	2.81	2.77
	SD	0.78	0.82	0.72	0.73	0.84	0.71
Occpt. Prestige	$\bar{X}$	57.01	54.12	58.85	58.59	56.41	57.56
	SD	19.57	20.00	17.75	19.34	21.84	17.30

[a]Pairwise deletions were employed from SPSS subprogram regression analysis. The number of cases for the total sample of four-year college students ranged from: total=591-1403; blacks = 225-541; Hispanics = 50-112; whites 252-750; males = 316-667; females = 275-736.

[b]See variable description section for specification of variable categories.